

Life Expectancy

Data Years: 1996-1998



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LIFE TABLES FOR THE AMERICAN INDIAN AND ALASKA NATIVE IHS SERVICE POPULATION BY IHS AREA AND GENDER, 1996-1998, WITH COMPARABLE DATA FOR THE U. S. ALL RACES, WHITE, AND BLACK POPULATIONS, 1997

U. S. Department of Health and Human Services
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TABLE OF CONTENTS

	<u>PAGE</u>
Introduction	1
Types of Life Tables	1
Generation versus Period Life Tables	1
Complete versus Abridged Life Tables	2
Adjusting for Misreporting of American Indian and Alaska Native Race	
on State Death Certificates	3
Data Presentations	3
Life Expectancy at Birth	4
Years of Life Remaining for Persons 20-24 Years of Age	4
Years of Life Remaining for Persons 40-44 Years of Age	5
Years of Life Remaining for Persons 60-64 Years of Age	5
Table 1. Life Expectancy at Selected Ages, American Indian and	
Alaska Natives Residing in the IHS Service Area	6-7
APPENDIX .	
Constructing Abridged Life Tables	A2
Life Table Values	A2
Preliminary Life Table Data	A2-3
F factor	A3
Separation Factor	A3
End-Value Constant	A3
How to Interpret a Life Table	A4-5
Adjusting for Misreporting of Indian Race on State Death Certificates	A5
Life Expectancy Charts (Based on Data Presented in Table 1)	A6-17
Detailed Life Expectancy Tables by IHS Area	A18-56



INTRODUCTION

Life tables are a comprehensive measure of the effect of mortality on life expectancy and are a more refined means of measuring mortality levels in a population than crude, age-specific, or age-adjusted mortality rates. They allow comparison of mortality rates between populations without requiring adjustment to an actual standard population in order to account for differences in age distributions between those populations.

Life tables are routinely prepared by the National Center for Health Statistics (NCHS) by race/ethnicity and gender. NCHS does not, however, prepare life tables for the American Indian and Alaska Native (AI/AN) population. The purpose of this report is to provide life tables for the AI/AN population residing in the service area in which the Indian Health Service (IHS) has responsibilities and to make comparisons between Indian life expectancy and the all races, white, and black U.S. populations. This report also includes a discussion of life table definitions and methodology in order to provide a better understanding of life table data. The life tables included in this report are based on three years of data because of the small numbers of American Indian deaths that occur during a single calendar year.

The starting point for the construction of a life table is a series of age-specific mortality rates developed for that population. All other functions in the table evolve from these rates. The other functions include the number of survivors, the number of deaths, the number of person-years lived at a given age, the number of person-years lived after reaching that age, and the expected future life for a person reaching that age.

Life expectancy is not to be confused with life span. Life expectancy, simply put, is the number of years an average person can expect to live and is measurable using current mortality statistics. Life expectancy varies across generations, countries around the world, by race, and by gender. Life span is the maximum number of years a species expects to live under optimum conditions. Life span has probably not changed in recent times; it is a concept that cannot be measured easily.

TYPES OF LIFE TABLES

GENERATION VERSUS PERIOD LIFE TABLES

It is important to understand some basic concepts regarding life tables. There are two different types of life tables: the generation or cohort life table and the current or period life table. The generation life table is based on the mortality experience of a particular birth cohort, which includes all persons born in a particular year. Preparation of a generation life table requires use of the mortality rates actually experienced by that cohort at each age during its lifetime, until all persons in the cohort have died. It provides a longitudinal picture of the actual lifetime experience of a particular group of people. It is difficult to prepare since it requires compilation of mortality data over a very long period of time, (i.e. 100 years or more), depending on the

number of years the last surviving member of the cohort lives. Because of the extended time period required to complete generation life tables, such tables are seldom prepared.

The current or period life table presented in this report is more commonly used as it is based on a "synthetic" instead of a real birth cohort. A synthetic cohort consists of a population distributed by age as it exists at a particular point in time and is cross-sectional in that it crosses numerous generations and includes people born in many different years. A period life table is representative of the combined mortality experience by age of a cross-section of population at a particular point in time, and is developed based on the applicable age-specific mortality rates for a time era. As such, a synthetic cohort does not represent the actual experience of a real cohort. The current life table provides a "snap shot" of current mortality experience and provides an indicator of the long-term results should current mortality rates prevail.

Both current and generation life tables assume a cohort of 100,000 live births as a starting point. All values generated by the life table evolve from the original 100,000 births.

The current life table itself can be interpreted in two ways. The first interpretation is a birth cohort of 100,000 live births aging over time and subject to the mortality conditions shown over its lifetime. The second interpretation is a "stationary population" in which there are 100,000 live births every year with each birth cohort subject to the same age-specific mortality rates over its lifetime, resulting in a population with an unchanging number and age distribution.

COMPLETE VERSUS ABRIDGED LIFE TABLES

Complete life tables contain data by single year of age; they use counts of the population enumerated during a decennial census and deaths for a three-year period centered on the decennial census year. Abridged life tables contain data by five-year age intervals and are usually prepared annually; however, for this report they have been prepared using three-year aggregated data because of the relatively small number of AI/ANs residing in the counties included in the IHS service delivery area. Annual abridged life tables are prepared by using the most recent decennial life table as a standard and adjusting abridged life table functions to that standard.

The methodology used here was developed by NCHS and is referred to as, "The revised method of computing life tables by reference to a 'standard' table." The appendix provides a brief description of the methodology.

NCHS developed a report that discusses the methodology in detail. Guidance on how to interpret a life table is also included in the appendix.

¹ Comparison of Two Methods of Constructing Abridged Life Tables by Reference to a "Standard" Table. Public Health Service Publication Number 1000, Series 2, Number 4. Revised March 1996.

ADJUSTING FOR MISREPORTING OF INDIAN RACE ON STATE DEATH CERTIFICATES

Misreporting of Indian race on state death certificates occurs, especially in areas distant from traditional Indian reservations. In order to determine the degree and scope of the misreporting, IHS conducted a study utilizing the National Death Index (NDI) maintained by NCHS. The results of the NDI study provide sufficient numbers to calculate adjustments to the number of deaths by sex for each IHS Area, for IHS overall, and for five-year age groups. Adjusted life expectancies are considered to be a more accurate representation of Indian life expectancy than unadjusted life expectancies since they are "adjusted" to account for misreporting of American Indian race on state death certificates. Therefore, the analyses in this report are based upon the adjusted life expectancies. For more information on adjusting for misreporting of Indian race on state death certificates, see the *Appendix*.

DATA PRESENTATIONS

A summary table (Table 1) and 12 charts (Charts A1-D3) for AI/AN life expectancies at birth and for persons at several age groups (20-24 years, 40-44 years, and 60-64 years) are presented in this report. Data are provided by gender (all AI/AN, male, and female), and for each IHS Area. For comparison, the table and accompanying charts show the life expectancies for U. S. all races, U. S. white, and U. S. black populations. Life expectancies for other five-year age groups, in addition to those selected for review in this report, are provided in the detailed life expectancy tables found in the *Appendix* at the end of the report.

The life expectancy data presented in this report are based upon data that have been adjusted for the misreporting of AI/AN race on the death certificate. Unadjusted life expectancy data are included in Table 1. Detailed unadjusted life expectancy tables for each of the 12 IHS Areas are available upon request from the Division of Program Statistics. See *Introduction* for contact information.

Table A. Life expectancy at birth, 1996-98

	IHS AREA	ADJUSTED (Years of Life Remaining)
1	California	75.0
2	Nashville	73.6
3	Albuquerque	72.9
4	Oklahoma	72.8
5	Navajo	72.3
6	Portland	70.6
7	Alaska	69.5
8	Phoenix	69.2
9	Billings	68.0
10	Tucson	66.1
11	Aberdeen	65.4
12	Bemidji	65.3

Life expectancy at birth for all twelve IHS Areas was 70.6 years (1996-98). Comparable data for U.S. population (1997) were all races 76.5, white 77.1, and black 71.1.

For each IHS Area, life expectancies for females were higher than those for males. To measure the magnitude of this difference, ratios between the female life expectancies and the male life expectancies by IHS Area are presented (see Table 1). These ratios varied from 1.07 in Nashville to 1.15 in Tucson. For all twelve IHS Areas this ratio was 1.10 (1996-98). The comparable female to male ratios for the (1997) U.S. all races, white, and black populations were 1.08, 1.08, and 1.11 respectively.

YEARS OF LIFE REMAINING FOR PERSONS 20-24 YEARS OF AGE (TABLE 1 AND CHARTS B1, B2, AND B3)

Table B. Years of life remaining at 20-24 years, 1996-98

	IHS AREA	ADJUSTED (Years of Life Remaining)
1	California	56.4
2	Albuquerque	54.2
	Nashville	54.2
4	Oklahoma	54.1
5	Navajo	53.7
6	Portland	52.1
7	Alaska	51.3
8	Phoenix	50.8
9	Billings	49.5
10	Tucson	47.7
11	Aberdeen	47.3
12	Bemidji	47.1

The years of life remaining for the age group 20-24 years for all twelve IHS Areas was 52.2 years. Comparable data for U.S. populations (1997) were all races 52.8, white 53.3, and black 48.2 years.

Ratios of female to male years of life remaining for AI/AN in the age group 20-24 years varied from 1.10 for Nashville to 1.18 for Aberdeen and Tucson. For all twelve IHS Areas this ratio was 1.13. The comparable ratios for the U.S. all races, white, and black populations were 1.11, 1.10, and 1.15, respectively.

YEARS OF LIFE REMAINING FOR PERSONS 40-44 YEARS OF AGE (TABLE 1 AND CHARTS C1, C2, AND C3)

Table C. Years of life remaining at 40-44 years, 1996-98

	IHS AREA	ADJUSTED (Years of Life Remaining)
1	California	38.3
2	Albuquerque	36.8
3	Navajo	36.7
4	Oklahoma	36.3
5	Nashville	36.0
6	Portland	34.3
7	Alaska	33.7
8	Phoenix	33.6
9	Billings	32.1
10	Tucson	31.2
11	Aberdeen	30.2
12	Bemidji	29.5

The years of life remaining for age group 40-44 years for all twelve IHS Areas was 34.6 years. Comparable data for U.S. populations (1997) were all races 34.1, white 34.5, and black 30.5.

Ratios of female to male years of life remaining for AI/AN in the age group 40-44 years varied from 1.09 for Phoenix to 1.20 for Aberdeen. For the twelve IHS Areas this ratio was 1.16. The comparable ratios for the U.S. all races, white, and black populations were 1.14, 1.14, and 1.20 respectively.

YEARS OF LIFE REMAINING FOR PERSONS 60-64 YEARS OF AGE (TABLE 1 AND CHARTS D1, D2, AND D3)

Table D. Years of life remaining at 60-64 years, 1996-98

Ī	IHS AREA	ADJUSTED (Years of Life Remaining)
1	California	22.3
2	Navajo	21.2
3	Oklahoma	21.1
4	Albuquerque	21.0
5	Nashville	20.5
6	Phoenix	18.9
7	Portland	18.6
8	Alaska	18.2
9	Tucson	17.4
10	Billings	16.8
11	Aberdeen	16.4
12	Bemidji	15.3

The years of life remaining for age group 60-64 years for all twelve IHS Areas was 19.4 years. Comparable data for U.S. populations (1997) were all races 17.7, white 17.8, and black 16.1 years.

Ratios of female to male years of life remaining for AI/AN in the age group 60-64 varied from 1.08 for Phoenix to 1.27 for Oklahoma. For the twelve IHS Areas this ratio was 1.19. The comparable ratios for the U.S. all races, white, and black populations were 1.21, 1.21 and 1.24 respectively.

A. LIFE EXPECTANCY AT BIRTH (Years of life remaining)

	Во	th Sexe	s		Male	Female				Ratio	
	UNADJ	ADJ	RANK (ADJ)	UNADJ	ADJ	RANK (ADJ)	UNADJ	ADJ	RANK (ADJ)	(Female: Male)	
IHS (All 12 Areas)	72.9	70.6		69.5	67.4		76.3	74.2		1.10	
Aberdeen	65.9	65.4	(11)	61.7	61.2	(12)	70.3	69.9	(11)	1.14	
Alaska	70.3	69.5	(7)	67.2	66.3	(8)	73.7	73.0	(7)	1.10	
Albuquerque	73.8	72.9	(3)	70.0	69.3	(3)	77.4	76.7	(2)	1.11	
Bemidji	68.0	65.3	(12)	65.1	62.6	(10)	70.9	68.3	(12)	1.09	
Billings	68.8	68.0	(9)	65.4	64.6	(9)	72.2	71.4	(9)	1,11	
California	80.5	75.0	(1)	77.2	71.4	(1)	83.5	78.4	(1)	1.10	
Nashville	75.0	73.6	(2)	72.5	70.4	(2)	77.4	75.4	(5)	1.07	
Navajo	72.4	72.3	(5)	68.2	68.0	(5)	76.7	76.5	(3)	1.13	
Oklahoma	77.9	72.8	(4)	74.3	69.3	(3)	81.1	76.0	(4)	1.10	
Phoenix	69.9	69.2	(8)	67.2	66.4	(7)	72.7	72.0	(8)	1.08	
Portland	72.1	70.6	(6)	69.5	67.9	(6)	74.7	73.3	(6)	1.08	
Tucson	66.4	66.1	(10)	62.0	61.6	(11)	70.8	70.7	(10)	1.15	
U.S. All Races (1997)	U.S. All Races (1997) 76.5			73.6			79.4			1.08	
U.S. White (1997)	77.1			74.3			79.9			1.08	
U.S. Black (1997) 71.1				67.2			74.7	1.11			

B. LIFE EXPECTANCY, PERSONS 20-24 YEARS (Years of life remaining)

·	Во	th Sexe	s	Male			F	emale	Ratio	
	UNADJ	ADJ	RANK (ADJ)	UNADJ	ADJ	RANK (ADJ)	UNADJ	ADJ	RANK (ADJ)	(Female: Male)
IHS (12 Areas)	54.3	52.2		51.0	49.1		57.4	55.5		1.13
Aberdeen	47.8	47.3	(11)	43.8	43.4	(12)	51,7	51.4	(12)	1,18
Alaska	52.1	51.3	(7)	49.4	48.6	(7)	55.0	to consider a set or control of telephone a financial		1.12
Albuquerque	55.1	54.2	(2)	51.7	51.0	(3)	58.4	57.7	(3)	1.13
Bemidji	49.5	47.1	(12)	47.0	44.6	(10)	52.1	49.7	(11)	1.11
Billings	50.4	49.5	(9)	47.5	46.7	(9)	53.1	52.3	(9)	1.12
California	61.3	56.4	(1)	58.0	53.1	(1)	64.3	59.5	(1)	1.12
Nashville	56.1	54.2	(2)	53.4	51.7	(2)	58.6	57.0	(5)	1.10
Navajo	53.9	53.7	(5)	49.9	49.7	(5)	58.0	57.8	(2)	1.16
Oklahoma	58.6	54.1	(4)	55.1	50.6	(4)	61.8	57.3	(4)	1.13
Phoenix	51.5	50.8	(8)	49.0	48.2	(8)	54.0	53.3	(8)	1.11
Portland	53.3	52.1	(6)	50.8	49.5	(6)	55.8	54.7	(6)	1.11
Tucson	48.0	47.7	(10)	44.2	43.8	(11)	51.8 51.6 (10)		1.18	
U.S. All Races (1997)	52.8			50.1			55.4			1.11

U.S. All Races (1997)	52.8	50.1	55.4	1.11
U.S. White (1997)	53,3	50.6	55.8	1.10
U.S. Black (1997)	48.2	44.7	51.4	1.15

^{() =} Area Office rank.

UNADJ = Unadjusted; data not adjusted to compensate for misreporting of AI/AN race on state death certificates. ADJ = Adjusted; data adjusted to compensate for misreporting of AI/AN race on state death certificates.

C. LIFE EXPECTANCY, PERSONS 40-44 YEARS (Years of life remaining)

	Both Sexes			Male			Female			Ratio	
	UNADJ	ADJ	RANK (ADJ)	UNADJ	ADJ	RANK (ADJ)	UNADJ	ADJ	RANK (ADJ)	(Female: Male)	
IHS (12 Areas)	36.4	34.6		33.9	32.2		38.8	37.2		1.16	
Aberdeen	30.7	30.2	(11)	27.8	27.5	(11)	33.4	33.1	(11)	1.20	
Alaska	34.5	33.7	(7)	32.3	31.6	(8)	36.7	36.1	(7)	1.14	
Albuquerque	37.6	36.8	(2)	35.1	34.5	(2)	39.9	39 4	(2)	1.14	
Bemidji	31.4	29.5	(12)	29.1	27.2	(12)	33.6	31.7	(12)	1.17	
Billings	32.7	32.1	(9)	30.6	29.9	(9)	34.7	34.1	(9)	1.14	
California	42.6	38.3	(1)	39.6	35.2	(1)	45.2	41.1	(1)	1.17	
Nashville	37.6	36.0	(5)	35.4	33.9	(4)	39.6	38.3	(5)	1.13	
Navajo	36.9	36.7	(3)	34.1	34.0	(3)	39.4	39.2	(3)	1.15	
Oklahoma	40.5	36.3	(4)	36.7	33.1	(5)	42.8	39.2	(3)	1.18	
Phoenix	34.2	33.6	(8)	32.7	32.1	(7)	35.6	35.0	(8)	1.09	
Portland	35.3	34.3	(6)	33.3	32.2	(6)	37.3	36.3	(6)	1.13	
Tucson	31.5	31.2	(10)	29.0	28.5	(10)	33.8	33.6	(10)	1.18	
U.S. All Races (1997)	. All Races (1997) 34.1			31.8			36.3			1.14	
U.S. White (1997)	34.5		- 1 -	32.1		36.6				1.14	
U.S. Black (1997)						1.20					

7)[34.1	31.8	36.3	1.14
	34.5	32.1	36.6	1,14
	30.5	27.5	33.1	1.20

D. LIFE EXPECTANCY, PERSONS 60-64 YEARS (Years of life remaining)

	Во	th Sexe	s	Male			F	emale	Ratio	
	UNADJ	ADJ	RANK (ADJ)	UNADJ	ADJ	RANK (ADJ)	UNADJ	ADJ	RANK (ADJ)	(Female: Male)
IHS (12 Areas)	20.8	19.4		19.1	17.8		22.3	21.2		1.19
Aberdeen	16.7	16.4	(11)	15.4	15.1	(11)	17.8	17.6	(11)	1.17
Alaska	18.8	18.2	(8)	17.4	16.8	(8)	20.1	19.7	(7)	1.17
Albuquerque	21.7	21.0	(4)	20.4	19.9	(1)	22.7	22.3	(4)	1.12
Bemidji	16.6	15.3	(12)	15.0	13.7	(12)	18.1	16.8	(12)	1.23
Billings	17.3	16.8	(10)	15.7	15.2	(10)	18.8	18.3	(10)	1.20
California	25.7	22.3	(1)	23.2	19.6	(3)	27.8	24.7	(1)	1.26
Nashville	21.8	20.5	(5)	20.4	19.2	(4)	22.9	22.0	(5)	1.15
Navajo	21.3	21.2	(2)	19.9	19.7	(2)	22.6	22.5	(3)	1.14
Oklahoma	23.7	21.1	(3)	21.0	18.4	(5)	25.8	23.4	(2)	1.27
Phoenix	19.5	18.9	(6)	18.7	18.1	(6)	20.1	Plant attended to be the Art in the second of the second		1.08
Portland	19.4	18.6	(7)	17.9	17.0	(7)	20.8			1.18
Tucson	17.8	17.4	(9)	16.4	15.8	(9)	18.9	18.7	(9)	1.18

U.S. All Races (1997) 17.7 15.9 19.2 1.21 U.S. White (1997) 19.3 17.8 16.0 1.21 U.S. Black (1997) 17.6 1.24 16.1 14.2

UNADJ = Unadjusted; data not adjusted to compensate for misreporting of AI/AN race on state death certificates. ADJ = Adjusted; data adjusted to compensate for misreporting of AI/AN race on state death certificates.

^{() =} Area Office rank.



APPENDIX

Constructing Abridged Life Tables	A2
Life Table Values	A2
Preliminary Life Table Data	A2-3
F factor	A3
Separation Factor	A3
End-Value Constant	A3
How to Interpret a Life Table	A4-5
Adjusting for Misreporting of Indian Race on State Death Certificates	A5
Life Expectancy Charts (Based on Data Presented in Table 1)	A6-17
Detailed Life Expectancy Tables by IHS Area	A18-56

CONSTRUCTING ABRIDGED LIFE TABLES

LIFE TABLE VALUES

The life tables in this report include the basic life table functions commonly shown as part of a published life table. The columns in a life table are identified by mathematical symbols as described below.

- _nQ_x The probability of dying during the age interval.
- l_x The number of persons out of the original 100,000 live births who are still alive at the beginning of the age interval.
- nd_x The number dying during the specified age interval.
- _nL_x The number of person-years lived during the specified age interval.
- T_x The total number of person-years that will be lived from the beginning of the specified age interval until the last person in the cohort dies.
- e_x Life expectancy, the average number of years remaining in the lifetime of a person alive at the beginning of the specified age interval.

PRELIMINARY LIFE TABLE DATA

The following preliminary life table data are not published as part of a life table but are used to generate the life table values described above. Some of these data are fixed constants which have been developed by NCHS for standardizing the abridged tables to the complete decennial life tables. Other preliminary data include mortality and population data used to develop mortality rates. The preliminary data are as follows:

- $_{n}A_{x}$ A set of constants derived by NCHS from the complete decennial life table used as the standard table. These constants are used as adjustment factors to convert the age-specific mortality rates into $_{n}q_{x}$, the probability of dying for each age interval. The conversion of the observed $_{n}M_{x}$ to the $_{n}q_{x}$ in the abridged life table is based on the relationship of the $_{n}M_{x}$ to the $_{n}q_{x}$ in the table being used as the standard. The A constant differs by race and by gender.
- nB_x A set of constants derived by NCHS from the complete decennial life table that is used as the standard table. These constants represent the distribution of deaths within the age interval. They are used to compute nL_x, the number of person years lived during the age interval. Their computation assumes that the age distribution of those dying within the interval is the same within the abridged table as it is within the standard table. The B constant differs by race and by gender.

- $_{n}P_{x}$ The estimated midyear population for the age interval.
- $_{n}D_{x}$ The number of deaths for the age interval.
- $_{n}M_{x}$ The age-specific death rate for the age interval.
- $1+_{n}A_{x}*_{n}M_{x}$ A set of adjustment factors used to convert the observed population age-specific mortality rates into the probability of dying, or ${}_{n}q_{x}$ using the ${}_{n}A_{x}$ constant defined above.

Several additional factors that are called into the computations within columns of the spreadsheet are not normally shown individually in a life table. These include an F factor, a separation factor, and an end value constant. These computations are prepared for both genders combined and for each gender separately using different constants for the factors for each of these three population groups.

The *F factor* is used to adjust proportionately the age-specific death rates for the number of deaths with age not stated. It is computed for each life table based on number of deaths not stated in the population under study.

The *separation factor* is a constant developed by NCHS that is incorporated into the formula computing the infant mortality rate. Normally, the infant mortality rate is computed simply by dividing the number of infant deaths in a given year by the number of births in that year even though infant deaths do not always occur in the year of birth. The purpose of the separation factor is to separate infants dying at less than one year of age into those born in that same year from those born in the previous year. The infant mortality rate is then computed in two parts, using the appropriate number of births as the denominator for the infant deaths which have been "separated" by year of birth.

The *end-value constant* is developed by NCHS and used to compute the number of remaining person-years lived for those age 85 years and older. This is necessary because this age group is an open-ended interval.

HOW TO INTERPRET A LIFE TABLE

Although a life table contains a multitude of numbers and formulas, the primary interest of a life table user is most likely one number, the expected years of life at birth. This number (the expected years of life at birth) is shown as the first number in column seven on each of the life tables (A1-A39). The purpose of all other numbers and formulas within the table is the generation of that number. Life tables are usually prepared by gender because of the substantial difference found between the life expectancy of males and females.

In order to understand the life table concept it is important to understand life table functions and how they are interrelated.

Preliminary life table data are not presented in this report, with the exception of ${}_{n}B_{x}$, is used to compute ${}_{n}Q_{x}$, which is the proportion or probability of dying during the age interval. The first step in the generation of ${}_{n}Q_{x}$ is the computation of the age-specific death rate, or ${}_{n}M_{x}$, from the number of deaths and the population within the age group. ${}_{n}M_{x}$ may differ slightly from the age-specific mortality rates that we normally use because the number of deaths with age not stated are distributed proportionally among the age groups in the computation of ${}_{n}M_{x}$. ${}_{n}M_{x}$ also differs from the normal infant mortality rate due to use of the separation factor as discussed earlier.

The second step toward computing ${}_{n}Q_{x}$ is the development of the adjustment factor, based on the relationship of the age-specific death rates to the probability of dying, ${}_{n}A_{x}$, that was found in the life table used as the standard. The age-specific death rates computed for the life table are then converted to the probability of dying within the interval by multiplying the rate times the length of the age interval and then dividing by the adjustment factor.

The next two life table columns, l_x and $_nd_x$, are interrelated. The first row of column l_x is the beginning cohort of 100,000 live births used as a starting point for any life table. The first row of column $_nd_x$ is the number of those 100,000 who die during this age interval. For each of the succeeding age groups, l_x is the number from the original cohort of 100,000 births who survive to the exact age at the beginning of the age interval. This number is computed by subtracting the number dying, or $_nd_x$, in the previous age interval from the number alive at the beginning of that previous interval. The number dying is computed by applying the probability of dying during the interval, $_nQ_x$, to the number alive at the beginning of the interval, l_x .

Columns $_{n}L_{x}$ and T_{x} are both related to the stationary population. $_{n}L_{x}$ differs from l_{x} in that l_{x} is the number of survivors from a single birth cohort of 100,000 births who survive to the beginning of an age interval, while $_{n}L_{x}$ is the total number of survivors within the age interval based on multiple birth cohorts of 100,000 births each, the number of cohorts depending on the number of years in the age interval identified. For example, the first age group in the life table consists of one birth cohort of 100,000 births. The second age interval is a four-year interval composed of four birth cohorts totaling 400,000 births. The remaining age groups (with the exception of 85+ years) are in five-year intervals of five birth cohorts totaling 500,000 births as

a beginning population. $_{n}L_{x}$ is computed by multiplying the number of single cohort survivors at the beginning of the interval, or l_{x} , by the number of cohorts (based on the size of the age interval) within the age interval and then subtracting deaths for the age interval, $_{n}d_{x}$, which has been adjusted by $_{n}B_{x}$, a conversion factor derived from the "standard" life table.

 T_x is the total number of survivors in the specified age group and all older age groups. It is computed by adding ${}_nL_x$ for the specified age interval to the sum of the ${}_nL_x$'s of older age groups.

Finally e_x^o , or life expectancy, is computed by dividing T_x by l_x for each age interval.

ADJUSTING FOR MISREPORTING OF INDIAN RACE ON STATE DEATH CERTIFICATES

Misreporting of Indian race on state death certificates occurs, especially in areas distant from traditional Indian reservations. In order to determine the degree and scope of the misreporting, IHS conducted a study utilizing the National Death Index (NDI) maintained by the NCHS. The study involved matching IHS patient records of those patients who could have died during 1986 through 1988 with all death records of U.S. residents for 1986 through 1988 as contained on the NDI. The results were published in a document entitled, *Adjusting for Miscoding of Indian Race on State Death Certificates*, November 1996. The study revealed that on 10.9 percent of the matched IHS-NDI records, the race reported for the decedent was other than American Indian or Alaska Native. The percentage of records with inconsistent classification of race ranged from 1.2 percent in the Navajo Area to 28.0 and 30.4 percents in the Oklahoma and California Areas, respectively.

The results of the NDI study provide sufficient numbers to calculate adjustments for each IHS Area, IHS overall, and selected age groups. In addition to these adjustments based on the study findings, IHS assumed the following; a) the results from 1986-88 apply to years beyond 1988 and b) IHS age-group adjustments applied also to each Area. These assumptions cannot be statistically supported by the results of the study. However, IHS felt that it was necessary to adjust all of the death data in this report to provide a meaningful and comprehensive look at life expectancy. IHS also believes that they are reasonable adjustments.

IHS has more specific adjustment factors for the age group under one year. These are derived from the linked birth/infant death data sets produced by the NCHS. IHS is assuming that data years 1994-96 can be adjusted based on the results from prior years of the linked data sets, which is not statistically sound but reasonable. These adjustments for 1994-96 take precedent over the NDI adjustments for the under one-year age group, described above.

Adjusted life expectancies are considered a more accurate representation of Indian life expectancy than actual life expectancies because the "unadjusted" data upon which they are based has been "adjusted" to account for misreporting of Indian race on death certificates. Therefore, the analyses in this report are based upon adjusted life expectancies.

Chart A1. Life Expectancy at Birth, Both Sexes

CY 1996-1998

Years of Life Remaining	40	U.S. All Races (1997) = 7 U.S. White Population (1 U.S. Black Population (19	997) = 77.1
Al 12 I-S Areas		70.6 (72.9)	
California	_	75.0 (80.5)	
Nashville		73.6 (75.0)	
Albuquerque		72.9 (73.8)	
Oklahoma		72.8 (77.9)	
Navajo		72.3 (72.4)	
Portland	-	70.6 (72.1)	
Alaska		69.5 (70.3)	
Phoenix		69.2 (69.9)	
Billings		68.0 (68.8)	
Tucson	66.	(66.4)	
Aberdeen	65.4	(65.9)	
Bemidji	65.3	(68.0)	

Chart A2. Life Expectancy at Birth, Males

CY 1996-1998

Voore of Life Domeini	U.S. All Races (1997) = 73.6 U.S. White Population (1997) = 74.3 U.S. Black Population (1997) = 67.2
Years of Life Remaini	40 60 80
All 12 IHS Areas	67.4 (69.5)
California	71.4 77.2)
Nashville	70.4 (72.5)
Albuquerque	69.3 (70.0)
Oklahoma	69.3 (74.3)
Navajo	68.0 (68.2)
Portland	67.9 (69.5)
Phoenix	66.4 (67.2)
Alaska	66.3 (67.2)
Billings	64.6 (65.4)
Bemidji	62.6 (65.1)
Tucson	61.6 (62.0)
Aberdeen	61.2 (61.7)

Chart A3. Life Expectancy at Birth, Females

CY 1996-1998

		U.S. All Races (1997) = 79.4 U.S. White Population (1997) = 79.9
Years of Life Remaining		U.S. Black Population (1997) = 74.7
0 20	40	60 80
All 12 IHS Areas		74.2 (76.3)
California		78.4 (83.5)
Albuquerque		76.7 (77.4)
Navajo		76.5 (76.7)
Oklahoma		76.0 (81.1)
Nashville		75.4 (77.4)
Portland		73.3 (74.7)
Alaska		73.0 (73.7)
Phoenix		72.0 (72.7)
Billings		71.4 (72.2)
Tucson		70.7 (70.8)
Aberdeen		69.9 (70.3)
Bemidji		68.3 (70.9)

Chart B1. Life Expectancy at 20-24 Years, Both Sexes CY 1996-1998

Years of Life Remaining		U.S. All Races (1997) = 52.8 U.S. White Population (1997) = 53.3 U.S. Black Population (1997) = 48.2
10 20	30	40 50 60
All 12 IHS Areas		52.2 (54.3)
California		56.4 (61.3)
Albuquerque		54.2 (55.1)
Nashville		54.2 (56.1)
Oklahoma		54.1 (58.6)
Navajo		53.7 (53.9)
Portland		52.1 (53.3)
Alaska		51.3 (52.1)
Phoenix		50.8 (51.5)
Billings		49.5 (50.4)
Tucson		47.7 (48.0)
Aberdeen		47.3 (47.8)
Bemidji		47.1 (49.5)

Chart B2. Life Expectancy at 20-24 Years, Males

CY 1996-1998

Years of Life Remaining		U.S. All Races U.S. White Pop U.S. Black Pop	pulation (199	7) = 50.6
10 20	30	40	50	60
All 12 IES Areas		49.1 (5	1.0)	
California		Ę	53.1 (58.0)	
Nashville		51.	.7 (53.4)	
Albuquerque		51.0	(51.7)	
Oklahoma		50.6	(55.1)	
Navajo		49.7 (49.9)	
Portland		49.5 (50.8)	
Alaska		48.6 (4	9.4)	
Phoenix		48.2 (49).0)	
Billings		46.7 (47.	5)	
Bemidji		44.6 (47.0)		
Tucson		43.8 (44.2)		
Aberdeen		43.4 (43.8)		

Chart B3. Life Expectancy at 20-24 Years, Females

CY 1996-1998

Years of Life Remaining		U.S. All Races U.S. White Pop U.S. Black Pop	ulation (1997) = 55.8
0 10 20	30	40	50	60
All 12 IFS Areas			55.5 (57.4)	
California			59.5	(64.3)
Navajo		,	57.8 (58	3.0)
Albuquerque			57.7 (58	3.4)
Oklahoma			57.0 (58.	6)
Nashville		·	57.3 (61.	8)
Portland			54.7 (55.8)	
Alaska	*		54.3 (55.0)	
Phoenix		5	3.3 (54.0)	
Billings		52.	3 (53.1)	
Tucson		51.	6 (51.8)	
Aberdeen		51.	4 (51.7)	
Bemidji		49.7 (5	52.1)	

Chart C1. Life Expectancy at 40-44 Years, Both Sexes CY 1996-1998

Years of Life Remain	ning	U.S.	White P	es (1997) = 34.1 opulation (1997) opulation (1997)) = 34.5
) 10 2			40	50	60
Ali 12 itS Areas	34.6 (36.4)				
California	38.3	(42.6)]		
Albuquerque	36.8 (3	7.6)			
Navajo	36.7 <i>(</i> 3	6.9)			
Oklahoma	36.3 (40).5)			
Nashville	36.0 <i>(</i> 37	7.6)			
Portland	34.3 (35.3)				
Alaska	33.7 (34.5)				
Phoenix	33.6 (34.2)				
Billings	32.1 (32.7)				
Tucson	31.2 (31.5)				
Aberdeen	30.2 (30.7)				
Bemidji	29.5 (31.4)				

Chart C2. Life Expectancy at 40-44 Years, Males

CY 1996-1998

Years of Life Re	emaining	U.S.	White Po	s (1997) = 31.8 opulation (1997 opulation (1997	7) = 32.1
10	20 30		40	50	60
Ali 12 IIS Areas	32.2 (33.9				
California	35.2 ((39.6)			
Albuquerque	34.5 (3	25.1)			
Navajo	34.0 (3	4.1)			
Nashville	33.9 (35	5.4)			
Oklahoma	33.1 <i>(</i> 36.	7)			
Portland	32.2 (33.3)			
Phoenix	32.1 (32.7)			
Alaska	31.6 (32.3)				
Billings	29.9 (30.6)				
Tucson	28.5 (29.0)				
Aberdeen	27.5 (27.8)				
Bemidji	27.2 (29.1)				

Chart C3. Life Expectancy at 40-44 Years, Females CY 1996-1998

Years of Life Remaini	ina	U.S. White P	es (1997) = 36. Population (1997) opulation (1997)	7) = 36.6
10 20	30	40	50	60
All 12 HS Areas	37.2 (38	1.8)		
California	41	.1 (45.2)		
Albuquerque	39.4	(39.9)		
Navajo	39.2 ((39.4)		
Oklahoma	39.2 ((42.8)		
Nashville	38.3 (3	39.6)		
Portland	36.3 (37.	3)		
Alaska	36.1 (36.7			
Phoenix	35.0 (35.6)			
Billings	34.1 (34.7)			
Tucson	33.6 (33.8)			
Aberdeen	33.1 (33.4)			
Bemidji	31.7 (33.6)			

Chart D1. Life Expectancy at 60-64 Years, Both Sexes CY 1996-1998

Voore of Life	Domoining		(1997) = 17.7 pulation (1997) = 17.8 pulation (1997) = 16.1
Years of Life	10 20	30	· · ·
All 12 IHS Areas	19.4 (20.8)		
California	22.3 (25	.7)	
Navajo	21.2 (21.3)		
Oklahoma	21.1 (23.7)		
Albuquerque	21.0 (21.7)		
Nashville	20.5 (21.8)		
Phoenix	18.9 (19.5)		
Portland	18.6 (19.4)		
Alaska	18.2 (18.8)		
Tucson	17.4 (17.8)		
Billings	16.8 (17.3)		
Aberdeen	16.4 (16.7)		
Bemidji	15.3 (16.6)		

Chart D2. Life Expectancy at 60-64 Years, Males

CY 1996-1998

ears of Lif	e Remaining	U.S. All Races (1997) = 15.9 U.S. White Population (1997) = 16.0 U.S. Black Population (1997) = 14.2
0	10 20	30 40
All 12 IHS Are	17.8 (19.1)	
Albuquerque	19.9 (20.4)	
Navajo	19.7 (19.9)	
California	19.6 (23.2)	
Nashville	19.2 (20.4)	
Oklahoma	18.4 (21.0)	
Phoenix	18.1 (18.7)	•
Portland	17.0 (17.9)	
Alaska	16.8 (17.4)	
Tucson	15.8 (16.4)	
Billings	15.2 (15.7)	
Aberdeen	15.1 <i>(15.4)</i>	
Bemidji	13.7 (15.0)	

Chart D3. Life Expectancy at 60-64 Years, Females

CY 1996-1998

Years of Life Remaining	U.S. All Races (1997) = 19.2 U.S. White Population (1997) = 19.3 U.S. Black Population (1997) = 17.6
0 10 2	20 30 40
All 12 IIIS Areas 21.2 (22	2.3)
California 24	4.7 (27.8)
Oklahoma 23.4	4 (25.8)
Navajo 22.5 ((22.6)
Albuquerque 22.3 ((22.7)
Nashville 22.0 (2	22.9)
Portland 20.0 (20.8)	יט
Alaska 19.7 (20.1)	
Phoenix 19.6 (20.1)	
Tucson 18.7 (18.9)	
Billings 18.3 (18.8)	
Aberdeen 17.6 (17.8)	
Bemidji 16.8 (18.1)	

Table A1. Life Tables for American Indians and Alaska Natives, Both Sexes in All 12 IHS Arcas, 1996-1998 (Adjusted')

Average number of years remaining at beginning of age interval (7)	9.07	70.3	66.5	61.6	26.7	52.2	47.7	43.2	38.9	34.6	30.5	26.7	23.0	19.4	16.2	13.2	10.6	8.1	0.9	
Total number of person-years lived in this and all subsequent age intervals (6)	7,063,972	6,964,749	6,569,113	6,075,592	5,582,787	5,092,437	4,606,953	4,126,773	3,652,855	3,187,479	2,733,348	2,294,181	1,874,758	1,479,718	1,116,077	792,487	519,167	303,094	147,538	
Person-years lived in the age interval (5)	99,223	395,636	493,521	492,805	490,350	485,484	480,180	473,918	465,376	454,131	439,167	419,423	395,040	363,641	323,590	273,320	216,073	155,556	147,538	
Number dying during age interval (4)	911	299	155	194	828	1,075	1,040	1,493	1,933	2,599	3,474	4,475	5,306	7,287	8,687	11,426	11,315	12,725	24,778	
Number of living at beginning of age interval (3)	100,000	680'66	98,790	98,635	98,441	97,613	96,538	95,498	94,005	92,072	89,473	85,999	81,524	76,218	68,931	60,244	48,818	37,503	24,778	
Proportion of persons alive at beginning of age interval dying during interval (2)	0.009114	0.003019	0.001571	0.001966	0.008412	0.011008	0.010770	0.015629	0.020564	0.028232	0.038824	0.052036	0.065084	0.095604	0.126027	0.189658	0.231788	0.339313	1.000000	
Period of life between two exact ages stated in years (1)	Under 1 year	1-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+ years	

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A2. Life Tables for American Indians and Alaska Natives, Both Sexes in Aberdeen Area, 1996-1998 (Adjusted¹)

Average number of years remaining at beginning of age interval (7)	65.4	65.3	61.5	56.6	51.7	47.3	42.9	38.5	34.3	30.2	26.5	23.0	19.7	16.4	13.6	11.1	8.9	8.9	4.9
Total number of person-years lived in this and all subsequent age intervals (6)	6,540,010	6,441,115	6,047,195	5,555,859	5,065,246	4,578,026	4,097,094	3,622,941	3,157,458	2,703,622	2,266,208	1,851,015	1,463,530	1,107,969	792,195	526,587	317,464	166,715	69,784
Person-years lived in the age interval (5)	98,895	393,920	491,336	490,613	487,220	480,932	474,153	465,483	453,836	437,414	415,193	387,485	355,561	315,774	265,608	209,123	150,749	96,931	69,784
Number dying during age interval	1,296	372	117	242	1,181	1,261	1,451	2,055	2,615	4,021	4,980	6,163	609'9	9,359	10,632	11,920	11,260	10,113	14,353
Number of living at beginning of age interval (3)	100.000	98,704	98,332	98,215	97,973	96,792	95,531	94,080	92,025	89,410	85,389	80,409	74,246	67,637	58,278	47,646	35,726	24,466	14,353
Proportion of persons alive at beginning of age interval dying during interval	0.012962	0.003772	0.001189	0.002461	0.012059	0.013023	0.015186	0.021839	0.028413	0.044972	0.058319	0.076645	0.089018	0.138369	0.182443	0.250179	0.315188	0.413369	1.000000
Period of life between two exact ages stated in years (1)	Under 1 vear	1-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+ years

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A3. Life Tables for American Indians and Alaska Natives, Both Sexes in Alaska Area, 1996-1998 (Adjusted 1)

Average number of years remaining at beginning of age interval (7)	69.5	69.1	65.3	50.4 55.6	51.3	46.9	42.2	37.9	33.7	29.8	25.9	22.0	18.2	14.9	11.6	9.3	6.7	4.7
Total number of person-years lived in this and all subsequent age intervals (6)	6,945,009	6,845,783	6,450,097	5,464,386	4,975,849	4,493,606	4,016,256	3,544,670	3,082,252	2,632,616	2,198,980	1,783,288	1,389,121	1,025,457	701,583	433,391	230,676	94,358
Person-years lived in the age interval (5)	99,226	395,686	493,400	492,311	482,243	477,350	471,586	462,418	449,636	433,636	415,692	394,167	363,664	323,874	268,192	202,715	136,318	94,358
Number dying during age interval (4) nDx	206	285	231	301	1,163	775	1,571	2,109	3,050	3,415	3,779	4,875	7,386	8,473	13,868	12,116	14,261	20,166
Number of living at beginning of age interval (3)	100,000	99,093	98,808	98,577 98,276	97,007	95,844	95,069	93,498	91,389	88,339	84,924	81,145	76,270	68,884	60,411	46,543	34,427	20,166
Proportion of persons alive at beginning of age interval dying during interval (2)	0.009073	0.002877	0.002336	0.003056	0.011985	0.008085	0.016524	0.022556	0.033376	0.038655	0.044496	0.060075	0.096837	0.123011	0.229562	0.260319	0.414234	1.000000
Period of life between two exact ages stated in years (1) x to x+n	Under 1 year	1-4 years	5-9 years	10-14 years	20-24 vears	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+ years

1 Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A4. Life Tables for American Indians and Alaska Natives, Both Sexes in Albuquerque Area, 1996-1998 (Adjusted 1)

Average number of years remaining at beginning of age interval (7)	Ex	72.9	72.4	9.89	63.7	58.8	54.2	49.8	45.2	40.9	36.8	32.5	28.6	24.8	21.0	17.7	14.5	11.3	8.1	5.4
Total number of person-years lived in this and all subsequent age intervals (6)	Tx	7,289,952	7,190,553	6,794,017	6,299,151	5,804,827	5,312,864	4,825,579	4,342,985	3,866,273	3,399,027	2,941,584	2,496,487	2,069,137	1,661,598	1,281,748	938,242	635,095	377,359	177,708
Person-years lived in the age interval (5)	nLx	66,399	396,536	494,866	494,324	491,963	487,285	482,594	476,712	467,246	457,443	445,097	427,350	407,539	379,850	343,506	303,147	257,736	199,651	177,708
Number dying during age interval (4)	nDx	704	269	26	171	818	1,008	828	1,531	2,276	1,626	3,438	3,670	4,273	6,872	7,604	8,509	9,549	13,531	33,196
Number of living at beginning of age interval (3)	×	100,000	99,296	99,027	98,930	98,759	97,941	96,933	96,075	94,544	92,268	90,642	87,204	83,534	79,261	72,389	64,785	56,276	46,727	33,196
Proportion of persons alive at beginning of age interval dying during interval	nQx	0.007035	0.002708	0.000976	0.001725	0.008285	0.010295	0.008849	0.015940	0.024073	0.017617	0.037931	0.042083	0.051149	0.086704	0.105040	0.131342	0.169675	0.289572	1.000000
Period of life between two exact ages stated in years	x to x+n	Under 1 year	1-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+ years

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A5. Life Tables for American Indians and Alaska Natives, Both Sexes in Bemidji Area, 1996-1998 (Adjusted¹⁾

Average number of years remaining at beginning of age interval (7)	65.3	65.1	61.3	56.4	51.6	47.1	42.7	38.1	33.7	29.5	25.5	21.8	18.3	15.3	12.4	6.6	8.0	0.9	4.2
Total number of person-years lived in this and all subsequent age intervals (6)	6,534,517	6,435,460	6,040,851	5,548,579	5,057,092	4,569,006	4,086,823	3,610,465	3,140,754	2,680,362	2,233,789	1,807,516	1,407,960	1,044,667	726,586	461,865	262,341	127,436	46,822
Person-years lived in the age interval (5)	99,057	394,609	492,272	491,487	488,086	482,183	476,358	469,711	460,392	446,573	426,273	399,556	363,293	318,081	264,721	199,524	134,905	80,614	46,822
Number dying during age interval (4)	1,105	403	89	332	1,060	1,240	1,078	1,613	2,126	3,464	4,781	5,966	8,658	9,375	11,932	14,117	11,512	10,048	11,122
Number of living at beginning of age interval (3)	100,000	98,895	98,492	98,424	98,092	97,032	95,792	94,714	93,101	90,975	87,511	82,730	76,764	68,106	58,731	46,799	32,682	21,170	11,122
Proportion of persons alive at beginning of age interval dying during interval (2)	0.011052	0.004073	0.000694	0.003375	0.010807	0.012778	0.011249	0.017029	0.022833	0.038073	0.054629	0.072117	0.112794	0.137659	0.203157	0.301659	0.352239	0.474650	1.000000
Period of life between two exact ages stated in years (1)	Under 1 vear	1-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+ years

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A6. Life Tables for American Indians and Alaska Natives, Both Sexes in Billings Area, 1996-1998 (Adjusted 1)

Period of life between	Proportion of persons alive at beginning of	Number of living at	Number duino durino	Person-vears lived in	Total number of person-years lived in this and all subsequent	Average number of years remaining at beginning of age
two exact ages stated in years	age miervai aying during interval	oegining of age interval	age interval	the age interval	age intervals	interval
(1)	(2)	(3)	(4)	(5)	(9)	(2)
x to x+n	nQx	×	nDx	nLx	×	X
Under 1 year	0.011271	100,000	1,127	99,039	6,796,300	68.0
1-4 years	0.001552	98,873	153	395,123	6,697,261	2.79
5-9 years	0.001941	98,720	192	493,068	6,302,138	63.8
10-14 years	0.001664	98,528	164	492,327	5,809,070	29.0
15-19 years	0.009383	98,364	923	489,752	5,316,743	54.1
20-24 years	0.012398	97,441	1,208	484,305	4,826,991	49.5
25-29 years	0.010798	96,233	1,039	478,657	4,342,686	45.1
30-34 years	0.020167	95,194	1,920	471,376	3,864,029	40.6
35-39 years	0.019661	93,274	1,834	461,959	3,392,653	36.4
40-44 years	0.026786	91,440	2,449	451,331	2,930,694	32.1
45-49 years	0.050140	88,991	4,462	434,425	2,479,363	27.9
50-54 years	0.059427	84,529	5,023	410,779	2,044,938	24.2
55-59 years	0.066698	79,506	5,303	384,957	1,634,159	20.6
60-64 years	0.123940	74,203	9,197	348,992	1,249,202	16.8
65-69 years	0.185256	900'59	12,043	295,827	900,210	13.8
70-74 years	0.240129	52,963	12,718	233,760	604,383	11.4
75-79 years	0.300883	40,245	12,109	171,242	370,623	9.5
80-84 years	0.438681	28,136	12,343	109,680	199,381	7.1
85+ years	1.000000	15,793	15,793	89,701	89,701	5.7

1 Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A7. Life Tables for American Indians and Alaska Natives, Both Sexes in California Area, 1996-1998 (Adjusted 1)

Average number of years remaining at beginning of age interval	EX	75.0	74.7	70.9	62.9	61.0	56.4	51.9	47.3	42.8	38.3	34.0	29.9	25.9	22.3	18.8	15.4	12.9	10.9	9.6
Total number of person-years lived in this and all subsequent age intervals (6)	Ϋ́	7,497,343	7,398,139	7,002,596	6,508,877	6,015,436	5,523,663	5,035,979	4,552,840	4,074,017	3,600,559	3,134,848	2,679,910	2,239,146	1,818,383	1,424,139	1,062,116	745,603	489,536	300,008
Number dying during Person-years lived in age interval (5)	nLx	99,204	395,543	493,719	493,441	491,773	487,684	483,139	478,823	473,458	465,711	454,938	440,764	420,763	394,244	362,023	316,513	256,067	189,528	300,008
Number dying during age interval (4)	nDx	933	301	40	66	809	1,004	802	937	1,215	1,917	2,450	3,262	4,807	5,797	7,059	11,193	12,848	13,582	31,146
Number of living at beginning of age interval (3)	×	100,000	290'66	98,766	98,726	98,627	98,019	97,015	96,213	95,276	94,061	92,144	89,694	86,432	81,625	75,828	68,769	57,576	44,728	31,146
Proportion of persons alive at beginning of age interval dying during interval (2)	nQx	0.009326	0.003043	0.000408	0.001005	0.006164	0.010244	0.008268	0.009740	0.012749	0.020376	0.026594	0.036370	0.055613	0.071016	0.093086	0.162766	0.223140	0.303660	1.000000
Period of life between two exact ages stated in years (1)	x to x+n	Under 1 year	1-4 vears	5-9 years	10-14 vears	15-19 years	20-24 vears	25-29 years	30-34 years	35-39 years	40-44 vears.	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+ years

1 Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A8. Life Tables for American Indians and Alaska Natives, Both Sexes in Nashville Area, 1996-1998 (Adjusted 1)

Average number of years remaining at beginning of age interval (7)	73.6	72.6	6.89	64.0	59.0	54.2	49.6	45.0	40.4	36.0	31.7	27.6	23.8	20.5	17.0	14.0	11.1	8.4	6.2
Total number of person-years lived in this and all subsequent age intervals (6)	7,359,802	7,259,802	6,860,744	6,363,034	5,865,642	5,369,413	4,876,295	4,386,811	3,901,382	3,422,198	2,951,582	2,492,472	2,050,736	1,634,996	1,251,109	904,715	606,042	362,476	182,091
Person-years lived in the age interval (5)	100,000	399,058	497,710	497,392	496,229	493,118	489,484	485,429	479,184	470,616	459,110	441,736	415,740	383,887	346,394	298,673	243,566	180,385	182,091
Number dying during age interval (4)	0	391	121	22	485	738	711	926	1,593	1,850	2,835	4,186	6,308	6,376	8,611	10,462	11,447	13,653	29,282
Number of living at beginning of age interval (3)	100,000	100,000	609'66	99,488	99,463	98,978	98,240	97,529	96,603	95,010	93,160	90,325	86,139	79,831	73,455	64,844	54,382	42,935	29,282
Proportion of persons alive at beginning of age interval dying during interval (2)	0.000000	0.003911	0.001211	0.000251	0.004873	0.007460	0.007241	0.009490	0.016493	0.019469	0.030431	0.046347	0.073232	0.079874	0.117235	0.161346	0.210487	0.317987	1.000000
Period of life between two exact ages stated in years (1) x to x+n	Under 1 year	1-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+ years

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A9. Life Tables for American Indians and Alaska Natives, Both Sexes in Navajo Area, 1996-1998 (Adjusted 1)

Average number of years remaining at beginning of age interval (7)	72.3	71.8	0.89	63.2	58.3	53.7	49.5	45.0	40.8	36.7	32.7	28.8	25.0	21.2	17.6	14.6	11.8	9.1	8.9
Total number of person-years lived in this and all subsequent age intervals (6)	7,227,739	7,128,362	6,732,065	6,237,888	5,744,506	5,253,457	4,767,936	4,288,757	3,816,686	3,354,182	2,903,580	2,467,223	2,047,937	1,648,384	1,272,862	932,223	637,564	394,810	209,927
Person-years lived in the age interval (5)	99,377	396,297	494,177	493,382	491,049	485,521	479,179	472,071	462,504	450,602	436,357	419,286	399,553	375,522	340,639	294,659	242,754	184,883	209,927
Number dying during age interval (4)	730	325	198	185	286	1,399	1,121	1,759	2,071	2,724	3,031	3,839	4,052	5,587	8,382	9,991	10,640	12,350	30,830
Number of living at beginning of age interval (3)	100.000	99,270	98,945	98,747	98,562	97,776	96,377	95,256	93,497	91,426	88,702	85,671	81,832	77,780	72,193	63,811	53,820	43,180	30,830
Proportion of persons alive at beginning of age interval dying during interval (2)	0.007298	0.003275	0.001998	0.001877	0.007980	0.014303	0.011634	0.018468	0.022148	0.029790	0.034172	0.044809	0.049519	0.071829	0.116105	0.156572	0.197705	0.286013	1.000000
Period of life between two exact ages stated in years (1)	Under 1 year	1-4 vears	5-9 years	10-14 years	15-19 years	20-24 vears	25-29 vears	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+ years

1 Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A10. Life Tables for American Indians and Alaska Natives, Both Sexes in Oklahoma Area, 1996-1998 (Adjusted 1)

Average number of years remaining at beginning of age interval (7)	72.8	72.3	68.5	63.6	58.7	54.1	49.6	45.0	40.6	36.3	32.2	28.2	24.6	21.1	18.0	14.7	12.2	9.6	7.7
Total number of person-years lived in this and all subsequent age intervals (6)	7,275,650	7,176,309	6,780,057	6,285,711	5,791,931	5,300,041	4,812,235	4,329,110	3,851,630	3,381,533	2,921,249	2,474,402	2,046,532	1,643,372	1,271,220	934,973	643,685	405,843	226,599
Person-years lived in the age interval (5)	99,341	396,252	494,346	493,780	491,890	487,806	483,125	477,480	470,097	460,284	446,847	427,870	403,160	372,152	336,247	291,288	237,842	179,244	226,599
Number dying during age interval (4) nDx	772	274	153	118	681	918	951	1,331	1,627	2,333	3,120	4,546	5,365	7,059	7,222	10,796	10,431	12,849	29,454
Number of living at beginning of age interval (3)	100,000	99,228	98,954	98,801	98,683	98,002	97,084	96,133	94,802	93,175	90,842	87,722	83,176	77,811	70,752	63,530	52,734	42,303	29,454
Proportion of persons alive at beginning of age interval dying during interval (2)	0.007724	0.002759	0.001542	0.001193	0.006903	0.009369	0.009800	0.013846	0.017158	0.025039	0.034342	0.051828	0.064499	0.090722	0.102074	0.169929	0.197796	0.303737	1.000000
Period of life between two exact ages stated in years (1)	Under 1 year	1-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+ years

1 Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A11. Life Tables for American Indians and Alaska Natives, Both Sexes in Phoenix Area, 1996-1998 (Adjusted 1)

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Average number of years remaining at beginning of age interval (7)	69.2	68.8	65.0	60.1	55.3	50.8	46.3	41.9	37.6	33.6	29.6	25.9	22.5	18.9	16.0	13.3	11.0	8.5	6.5	
Total number of person-years lived in this and all subsequent age intervals (6)	6,920,143	6,820,913	6,425,096	5,931,256	5,438,360	4,948,639	4,463,982	3,985,007	3,513,713	3,053,022	2,605,712	2,175,297	1,767,811	1,387,283	1,040,362	737,474	487,073	290,337	147,759	
Person-years lived in the age interval (5)	99,230	395,817	493,840	492,896	489,721	484,657	478,975	471,294	460,691	447,310	430,415	407,486	380,528	346,921	302,888	250,401	196,736	142,578	147,759	
Number dying during age interval (4)	903	237	166	301	1,002	957	1,324	1,779	2,480	2,898	3,962	5,278	5,499	7,997	9,566	11,407	9,888	11,627	22,729	
Number of living at beginning of age interval (3)	100,000	260'66	98,860	98,694	98,393	97,391	96,434	95,110	93,331	90,851	87,953	83,991	78,713	73,214	65,217	55,651	44,244	34,356	22,729	
Proportion of persons alive at beginning of age interval dying during interval (2)	0.009025	0.002391	0.001680	0.003049	0.010187	0.009832	0.013734	0.018709	0.026570	0.031899	0.045052	0.062839	0.069865	0.109231	0.146680	0.204978	0.223495	0.338440	1.000000	
Period of life between two exact ages stated in years (1) x to x+n	Under 1 year	1-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+ years	

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A12. Life Tables for American Indians and Alaska Natives, Both Sexes in Portland Area, 1996-1998 (Adjusted 1)

Average number of years remaining at beginning of age interval (7)	9.07	70.3	66.5	61.6	56.8	52.1	47.6	43.1	38.6	34.3	30.2	26.4	22.5	18.6	15.3	12.3	9.7	7.5	5.8
Total number of person-years lived in this and all subsequent age intervals (6)	7,061,195	6,961,978	6,566,399	6,073,175	5,580,878	5,090,748	4,604,849	4,124,071	3,648,829	3,180,781	2,723,507	2,281,527	1,858,055	1,455,395	1,082,318	752,189	476,131	264,777	123,674
Person-years lived in the age interval (5)	99,217	395,579	493,224	492,297	490,130	485,899	480,778	475,242	468,048	457,274	441,980	423,472	402,660	373,077	330,129	276,058	211,354	141,103	123,674
Number dying during age interval (4)	918	311	228	219	665	866	1,047	1,182	1,710	2,644	3,564	3,851	4,494	7,420	6,739	11,873	13,865	14,038	21,234
Number of living at beginning of age interval (3)	100,000	99,082	98,771	98,543	98,324	97,659	96,661	95,614	94,432	92,722	. 820,06	86,514	82,663	78,169	70,749	61,010	49,137	35,272	21,234
Proportion of persons alive at beginning of age interval dying during interval (2)	0.009179	0.003139	0.002306	0.002223	0.006765	0.010222	0.010831	0.012360	0.018110	0.028520	0.039571	0.044515	0.054365	0.094918	0.137653	0.194601	0.282164	0.397986	1.000000
Period of life between two exact ages stated in years (1) x to x+n	Under 1 year	1-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+ years

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A13. Life Tables for American Indians and Alaska Natives, Both Sexes in Tucson Area, 1996-1998 (Adjusted 1)

Average number of years remaining at beginning of age interval (7)	66.1	65.7	61.8	56.9	52.1	47.7	43.2	39.0	35.0	31.2	27.3	23.8	20.9	17.4	15.1	12.2	10.0	7.2	5.6
Total number of person-years lived in this and all subsequent age intervals (6)	6,609,901	6,510,637	6,114,665	5,620,621	5,127,628	4,638,117	4,154,297	3,677,754	3,211,782	2,760,411	2,325,939	1,911,881	1,527,804	1,175,931	863,049	597,190	379,382	210,784	95,202
Person-years lived in the age interval (5)	99,264	395,972	494,044	492,993	489,511	483,820	476,543	465,972	451,371	434,472	414,058	384,077	351,873	312,882	265,859	217,808	168,598	115,582	95,202
Number dying during age interval (4)	863	239	161	363	1,053	1,160	1,766	2,509	3,351	3,423	4,874	7,244	5,524	10,218	8,413	10,806	8,710	12,356	16,967
Number of living at beginning of age interval (3)	100.000	99,137	98,898	98,737	98,374	97,321	96,161	94,395	91,886	88,535	85,112	80,238	72,994	67,470	57,252	48,839	38,033	29,323	16,967
Proportion of persons alive at beginning of age interval dying during interval (2)	0.008630	0.002415	0.001627	0.003678	0.010699	0.011916	0.018370	0.026582	0.036471	0.038667	0.057263	0.090284	0.075679	0.151445	0.146949	0.221261	0.229000	0.421365	1.000000
Period of life between two exact ages stated in years (1)	Under 1 vear	1-4 vears	5-9 years	10-14 years	15-19 years	20-24 years	25-29 vears	30-34 vears	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+ years

Lounts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A14. Life Tables for American Indian and Alaska Native Males in All 12 IHS Areas, 1996-1998 (Adjusted 1)

Period of life between two exact ages stated in years (1)	Proportion of persons alive at beginning of age interval dying during interval (2)	Number of living at beginning of age interval (3)	Number dying during age interval (4)	Person-years lived in the age interval (5)	Total number of person-years lived in this and all subsequent age intervals (6)	Average number of years remaining at beginning of age interval (7)
Under 1 year	0 010090	100.000	1.009	99,135	6,737,062	67.4
1-4 vears	0.003024	98,991	299	395,254	6,637,927	67.1
5-9 years	0.001689	98,692	167	492,996	6,242,673	63.3
10-14 years	0.002461	98,525	242	492,210	5,749,677	58.4
15-19 years	0.011763	98,283	1,156	488,839	5,257,467	53.5
20-24 years	0.015350	97,127	1,491	482,036	4,768,628	49.1
25-29 years	0.015323	92,636	1,465	474,616	4,286,592	44.8
30-34 years	0.020898	94,171	1,968	466,131	3,811,976	40.5
35-39 years	0.027052	92,203	2,494	454,991	3,345,845	36.3
40-44 years	0.036679	602'68	3,290	440,604	2,890,854	32.2
45-49 years	0.048460	86,419	4,188	422,133	2,450,250	28.4
50-54 years	0.063194	82,231	5,196	398,837	2,028,117	24.7
55-59 years	0.081403	77,035	6,271	370,243	1,629,280	21.1
60-64 years	0.115617	70,764	8,181	334,099	1,259,037	17.8
65-69 years	0.148569	62,583	9,298	290,197	924,938	14.8
70-74 years	0.236395	53,285	12,596	235,332	634,741	11.9
75-79 years	0.282005	40,689	11,474	174,542	399,409	8.6
80-84 years	0.390027	29,215	11,395	116,792	224,867	7.7
85+ years	1.000000	17,820	17,820	108,075	108,075	6.1

1 Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A15. Life Tables for American Indian and Alaska Native Males in Aberdeen Area, 1996-1998 (Adjusted 1)

- control and can consequently	Proportion of persons alive at				Total number of person-years lived	Average number of
	beginning of age interval dying	Number of living at beginning of age interval	Number dying during age interval	Person-years lived in the age interval	in this and all subsequent age intervals	years remaining at beginning of age interval
	(2)	(3)	(4)	(5)	(9)	(7)
	nQx	× I	nDx	٦Ľx	Tx	Ж
James Grade	0.014530	100,000	1,453	98,755	6,123,550	61.2
corp unamorphism, on	0.004781	98,547	471	393,069	6,024,795	61.1
No. C. C. Constitution of the Constitution of	0.002043	98,076	200	489,825	5,631,726	57.4
t collection (C.A. Let Alle)	0.003152	97,876	308	488,851	5,141,901	52.5
15-19 years	0.016372	97,568	1,597	484,281	4,653,050	47.7
A MARINE AND A STATE OF	0.021154	95,971	2,030	474,954	4,168,769	43.4
25-29 years	0.018863	93,941	1,772	465,394	3,693,815	39.3
market and the second s	0.032449	92,169	2,991	453,666	3,228,421	35.0
35-39 years	0.045842	89,178	4,088	436,015	2,774,755	31.1
The special state	0.061905	85,090	5,267	412,737	2,338,740	27.5
45-49 years	0.076983	79,823	6,145	384,498	1,926,003	24.1
50-54 years	0.101546	73,678	7,482	350,653	1,541,505	20.9
55-59 years	0.122468	66,196	8,107	311,676	1,190,852	18.0
60-64 years	0.159823	58,089	9,284	268,065	879,176	15.1
·	0.214774	48,805	10,482	218,414	611,111	12.5
70-74 years	0.307927	38,323	11,801	162,484	392,697	10.2
	0.359973	26,522	9,547	108,561	230,213	8.7
	0.413172	16,975	7,014	66,850	121,652	7.2
85+ years	1.000000	9,961	9,961	54,802	54,802	5.5

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A16. Life Tables for American Indian and Alaska Native Males in Alaska Area, 1996-1998 (Adjusted 1)

Period of life					boul sagar live	Average number of
	persons alive at beginning of age	Number of living at			in this and all	years remaining at
between two exact	interval dying	beginning of age	Number dying	Person-years lived	subsequent age	beginning of age
ages stated in years	during interval	interval	during age interval	in the age interval	intervals	interval
(1)	(2)	(3)	(4)	(5)	(9)	(7)
x to x+n	nQx	×	nDx	nLx	Ϋ́	Ex
Under 1 year	0.010853	100,000	1,085	99,070	6,631,678	66.3
1-4 years	0.002949	98,915	292	394,967	6,532,608	0.99
5-9 years	0.002432	98,623	240	492,449	6,137,641	62.2
10-14 years	0.003327	98,383	327	491,354	5,645,192	57.4
15-19 years	0.020772	98,056	2,037	485,740	5,153,838	52.6
20-24 years	0.017379	96,019	1,669	476,066	4,668,098	48.6
25-29 years	0.012883	94,350	1,216	468,792	4,192,032	44.4
30-34 years	0.019886	93,134	1,852	461,225	3,723,240	40.0
35-39 years	0.025445	91,282	2,323	450,799	3,262,015	35.7
40-44 years	0.040903	88,959	3,639	436,012	2,811,216	31.6
45-49 years	0.055892	85,320	4,769	415,256	2,375,204	27.8
50-54 years	0.050195	80,551	4,043	393,171	1,959,948	24.3
55-59 years	0.070608	76,508	5,402	369,677	1,566,777	20.5
60-64 years	0.112567	71,106	8,004	336,236	1,197,100	16.8
65-69 years	0.149136	63,102	9,411	292,516	860,864	13.6
70-74 years	0.283265	53,691	15,209	230,912	568,348	10.6
75-79 years	0.323373	38,482	12,444	161,064	337,436	8.8
80-84 years	0.495759	26,038	12,909	97,016	176,372	8.9
85+ years	1.000000	13,129	13,129	79,356	79,356	0.9

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A17. Life Tables for American Indian and Alaska Native Males in Albuquerque Area, 1996-1998 (Adjusted 1)

Daving of life	Proportion of persons alive at beginning of age	Number of living at	and the second		Total number of person-years lived in this and all	Average number of years remaining at
between two exact	interval dying during interval	beginning of age interval	Number dying during age interval	Person-years lived in the age interval	subsequent age intervals	beginning of age interval
(1)	(2)	(3)	(4)	(5)	(9)	(2)
x to x+n	nQx	×	пDх	nLx	ĭ	Ex
Under 1 year	0.008931	100,000	893	99,235	6,930,985	69.3
1-4 years	0.002489	99,107	247	395,841	6,831,750	68.9
5-9 years	0.000778	98,860	77	494,086	6,435,909	65.1
10-14 years	0.002523	98,783	249	493,488	5,941,823	60.2
15-19 years	0.012463	98,534	1,228	489,933	5,448,335	55.3
20-24 years	0.014349	92,306	1,396	483,160	4,958,402	51.0
25-29 years	0.012690	95,910	1,217	476,589	4,475,242	46.7
30-34 years	0.026378	94,693	2,498	467,469	3,998,653	42.2
35-39 years	0.031734	92,195	2,926	453,907	3,531,184	38.3
40-44 years	0.028935	89,269	2,583	440,111	3,077,277	34.5
45-49 years	0.046653	86,686	4,044	423,811	2,637,166	30.4
50-54 years	0.061687	82,642	5,098	401,125	2,213,355	26.8
55-59 years	0.069824	77,544	5,414	374,828	1,812,230	23.4
60-64 years	0.112344	72,130	8,103	341,117	1,437,402	19.9
65-69 years	0.121359	64,027	7,770	301,150	1,096,285	17.1
70-74 years	0.144205	56,257	8,113	261,258	795,135	14.1
75-79 years	0.213375	48,144	10,273	214,842	533,877	11.1
80-84 years	0.302990	37,871	11,475	159,866	319,035	8.4
85+ years	1.000000	26,396	26,396	159,169	159,169	0.9

1 Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A18. Life Tables for American Indian and Alaska Native Males in Bemidji Area, 1996-1998 (Adjusted 1)

	Proportion of				Total number of	
Dariod of life	persons alive at	Number of living at	Notes - especial		person-years lived in this and all	Average number of years remaining at
between two exact	interval dying	beginning of age	Number dying	Person-years lived	subsequent age	beginning of age
ages stated in years	during interval	interval	during age interval	in the age interval	intervals	interval
(1)	(2)	(3)	(4)	(2)	(9)	(7)
x to x+n	nQx	×	nDx	nLx	×L	EX
Under 1 year	0.013262	100,000	1,326	98,864	6,255,703	62.6
1-4 years	0.004144	98,674	409	393,725	6,156,839	62.4
5-9 years	0.000000	98,265	0	491,325	5,763,114	58.6
10-14 years	0.004645	98,265	456	490,542	5,271,789	53.6
15-19 years	0.015644	608'26	1,530	485,635	4,781,247	48.9
20-24 years	0.015357	96,279	1,479	477,825	4,295,612	44.6
25-29 years	0.011241	94,800	1,066	471,407	3,817,787	40.3
30-34 years	0.024295	93,734	2,277	463,204	3,346,380	35.7
35-39 years	0.024155	91,457	2,209	451,949	2,883,176	31.5
40-44 years	0.053690	89,248	4,792	434,674	2,431,227	27.2
45-49 years	0.063942	84,456	5,400	409,436	1,996,553	23.6
50-54 years	0.075905	79,056	6,001	381,054	1,587,117	20.1
55-59 years	0.136586	73,055	9,978	341,516	1,206,063	16.5
60-64 years	0.168062	63,077	10,601	289,831	864,547	13.7
65-69 years	0.234174	52,476	12,289	232,354	574,716	11.0
70-74 years	0.387409	40,187	15,569	162,503	342,362	8.5
75-79 years	0.417223	24,618	10,271	97,217	179,859	7.3
80-84 years	0.514002	14,347	7,374	52,785	82,642	2.8
85+ years	1.000000	6,973	6,973	29,857	29,857	4.3

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A19. Life Tables for American Indian and Alaska Native Males in Billings Area, 1996-1998 (Adjusted 1)

Period of life	Proportion of persons alive at beginning of age	Number of living at	Number dvino	Person-vears lived	Total number of person-years lived in this and all subsequent age	Average number of years remaining at beginning of age
ages stated in years	during interval	interval	during age interval	in the age interval	intervals	interval
(1)	(2)	(3)	(4)	(5)	(9)	(2)
x to x+n	nQx	×	nDx	nLx	×	ПX
Under 1 year	0.016108	100,000	1,611	98,619	6,459,627	64.6
1-4 years	0.001286	98,389	127	393,254	6,361,008	64.7
5-9 years	0.002847	98,262	280	490,533	5,967,754	60.7
10-14 years	0.002702	97,982	265	489,455	5,477,221	55.9
15-19 years	0.014112	97,717	1,379	485,512	4,987,766	51.0
20-24 years	0.018877	96,338	1,819	477,299	4,502,254	46.7
25-29 years	0.015731	94,519	1,487	468,977	4,024,955	42.6
30-34 years	0.025330	93,032	2,356	459,505	3,555,978	38.2
35-39 years	0.024057	90,676	2,181	448,112	3,096,473	34.1
40-44 years	0.032092	88,495	2,840	435,620	2,648,361	29.9
45-49 years	0.051871	85,655	4,443	417,707	2,212,741	25.8
50-54 years	0.075154	81,212	6,103	391,592	1,795,034	22.1
55-59 years	0.087102	75,109	6,542	359,967	1,403,442	18.7
60-64 years	0.148558	68,567	10,186	318,281	1,043,475	15.2
65-69 years	0.193121	58,381	11,275	264,356	725,194	12.4
70-74 years	0.343047	47,106	16,160	195,639	460,838	8.6
75-79 years	0.353438	30,946	10,937	127,180	265,199	9.6
80-84 years	0.479594	20,009	965,6	75,385	138,019	6.9
85+ years	1.000000	10,413	10,413	62,634	62,634	6.0

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A20. Life Tables for American Indian and Alaska Native Males in California Area, 1996-1998 (Adjusted 1)

	Proportion of				Total number of	
	persons alive at	Months of living of			person-years lived	Average number of
hetween two exact	peginning of age interval dying	beginning of age	Number dying	Person-years lived	subsequent age	beginning of age
ages stated in years	during interval	interval	during age interval	in the age interval	intervals	interval
Ξ	(2)	(3)	(4)	(5)	(9)	(7)
x to x+n	nQx	×	nDx	nLx	Тх	Εχ
Under 1 vear	0.012018	100,000	1,202	98,970	7,144,881	71.4
1-4 years	0.002678	98,798	265	394,563	7,045,911	71.3
5-9 years	0.000000	98,533	0	492,665	6,651,348	67.5
10-14 years	0.000846	98,533	83	492,523	6,158,683	62.5
15-19 years	0.009195	98,450	902	490,233	5,666,160	57.6
20-24 years	0.010057	97,545	981	485,357	5,175,927	53.1
25-29 years	0.011564	96,564	1,117	480,103	4,690,570	48.6
30-34 years	0.012594	95,447	1,202	474,350	4,210,467	44.1
35-39 years	0.015968	94,245	1,505	467,590	3,736,117	39.6
40-44 years	0.025283	92,740	2,345	458,040	3,268,527	35.2
45-49 years	0.037604	90,395	3,399	443,890	2,810,487	31.1
50-54 years	0.038554	966,98	3,354	427,029	2,366,597	27.2
55-59 years	0.064861	83,642	5,425	405,292	1,939,568	23.2
60-64 years	0.096145	78,217	7,520	372,958	1,534,276	19.6
65-69 years	0.110213	70,697	7,792	334,447	1,161,318	16.4
70-74 years	0.195556	62,905	12,301	284,160	826,871	13.1
75-79 years	0.283700	50,604	14,356	216,857	542,711	10.7
80-84 years	0.373340	36,248	13,533	146,462	325,854	0.6
85+ years	1.000000	22,715	22,715	179,392	179,392	7.9

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A21. Life Tables for American Indian and Alaska Native Males in Nashville Area, 1996-1998 (Adjusted')

Period of life between two exact ages stated in years	Proportion of persons alive at beginning of age interval dying during interval	Number of living at beginning of age interval	Number dying during age interval	Person-years lived in the age interval	Total number of person-years lived in this and all subsequent age intervals	Average number of years remaining at beginning of age interval
(1) x to x+n	(2) nQx	(3) X	nDx	(5) nLx	TX (a)	EX
Under 1 year	0.008346	100,000	835	99,284	7,042,936	70.4
1-4 years	0.003651	99,165	362	395,800	6,943,652	20.0
5-9 years	0.001430	98,803	141	493,624	6,547,852	66.3
10-14 years	0.000506	98,662	20	493,224	6,054,228	61.4
15-19 years	0.005963	98,612	588	491,749	5,561,004	56.4
20-24 years	0.010412	98,024	1,021	487,655	5,069,255	51.7
25-29 years	0.008322	97,003	807	483,052	4,581,600	47.2
30-34 years	0.012369	96,196	1,190	478,124	4,098,548	42.6
35-39 years	0.022954	92,006	2,181	469,762	3,620,424	38.1
40-44 years	0.024168	92,825	2,243	458,711	3,150,662	33.9
45-49 years	0.033756	90,582	3,058	445,636	2,691,951	29.7
50-54 years	0.061381	87,524	5,372	424,885	2,246,315	25.7
55-59 years	0.092136	82,152	7,569	392,737	1,821,430	22.2
60-64 years	0.102340	74,583	7,633	354,515	1,428,693	19.2
65-69 years	0.136924	096,99	9,167	312,352	1,074,178	16.0
70-74 years	0.194884	57,783	11,261	261,117	761,826	13.2
75-79 years	0.235372	46,522	10,950	205,027	500,709	10.8
80-84 years	0.356556	35,572	12,683	145,267	295,682	8.3
85+ years	1.000000	22,889	22,889	150,415	150,415	9.9

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A22. Life Tables for American Indian and Alaska Native Males in Navajo Area, 1996-1998 (Adjusted 1)

	Proportion of persons alive at		and Motor agreement of the Control o		Total number of person-years lived	Average number of
Period of life	beginning of age	Number of living at	, , , , , , , , , , , , , , , , , , ,		in this and all	years remaining at
between two exact	interval dying	beginning of age	Number dying	Person-years lived in the age interval	suosequent age intervals	oeginning oj age interval
ages stated in years	auring miervai	mer vai	unimg age mici ini	יון יוור מפר ווורן ימי	(9)	6
(1)	(2)	(3)	(4)	(2)	(o)	
x to x+n	nQx	×	nDx	nLX	×	Ϋ́
Under 1 year	0.007470	100,000	747	99,360	6,804,048	68.0
1-4 years	0.002886	99,253	286	396,333	6,704,688	9.79
5-9 years	0.002170	98,967	215	494,238	6,308,355	63.7
10-14 years	0.002369	98,752	234	493,358	5,814,117	58.9
15-19 years	0.012630	98,518	1,244	489,817	5,320,759	54.0
20-24 years	0.023959	97,274	2,331	480,743	4,830,942	49.7
25-29 years	0.019012	94,943	1,805	470,324	4,350,199	45.8
30-34 years	0.027426	93,138	2,554	459,560	3,879,875	41.7
35-39 years	0.033074	90,584	2,996	445,683	3,420,315	37.8
40-44 years	0.041864	87,588	3,667	429,089	2,974,632	34.0
45-49 years	0.047157	83,921	3,957	410,193	2,545,543	30.3
50-54 years	0.053876	79,964	4,308	389,607	2,135,350	26.7
55-59 years	0.074615	75,656	5,645	364,838	1,745,743	23.1
60-64 years	0.089261	70,011	6,249	334,991	1,380,905	19.7
65-69 years	0.137060	63,762	8,739	297,458	1,045,914	16.4
70-74 years	0.178107	55,023	9,800	250,924	748,456	13.6
75-79 years	0.220261	45,223	9,961	201,023	497,532	11.0
80-84 years	0.317727	35,262	11,204	147,518	296,509	8.4
85+ years	1.000000	24,058	24,058	148,991	148,991	6.2

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A23. Life Tables for American Indian and Alaska Native Males in Oklahoma Area, 1996-1998 (Adjusted 1)

Period of life between two exact ages stated in years	Proportion of persons alive at beginning of age interval dying during interval	Number of living at beginning of age interval	Number dying during age interval	Person-years lived in the age interval	Total number of person-years lived in this and all subsequent age intervals	Average number of years remaining at beginning of age interval
(1) x to x+n	(2) nQx	(3)	(4) nDx	(5) nLx	(6) 7 ×	(<u>7</u>)
Under 1 year	0.007701	100,000	770	99,340	6,932,961	69.3
1-4 years	0.002699	99,230	268	396,284	6,833,621	68.9
5-9 years	0.001620	98,962	160	494,366	6,437,337	65.0
10-14 years	0.001253	98,802	124	493,797	5,942,971	60.2
15-19 years	0.007770	98,678	292	491,681	5,449,174	55.2
20-24 years	0.010930	97,911	1,070	486,972	4,957,493	50.6
25-29 years	0.012762	96,841	1,236	481,198	4,470,521	46.2
30-34 years	0.016592	95,605	1,586	474,218	3,989,323	41.7
35-39 years	0.021172	94,019	1,991	465,286	3,515,105	37.4
40-44 years	0.030919	92,028	2,845	453,273	3,049,819	33.1
45-49 years	0.039777	89,183	3,547	437,478	2,596,546	29.1
50-54 years	0.068260	85,636	5,846	414,321	2,159,068	25.2
55-59 years	0.075018	79,790	5,986	384,696	1,744,747	21.9
60-64 years	0.109758	73,804	8,101	349,492	1,360,051	18.4
65-69 years	0.118617	65,703	7,793	309,474	1,010,559	15.4
70-74 years	0.235617	57,910	13,645	255,867	701,085	12.1
75-79 years	0.268581	44,265	11,889	191,377	445,218	10.1
80-84 years	0.383769	32,376	12,425	129,950	253,841	7.8
85+ years	1.000000	19,951	19,951	123,891	123,891	6.2

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A24. Life Tables for American Indian and Alaska Native Males in Phoenix Area, 1996-1998 (Adjusted 1)

mber of ining at of age al	T	- OI	*	(C	~		<u> </u>	<u>~</u>		<u></u>	~			<u></u>	<u> </u>			
Average number of years remaining at beginning of age interval (7)	66.4	62.2 62.2	57.4	52.6	48.2	44.0	39.9	35.8	32.1	28.2	24.8	21.4	18.1	15.2	12.8	10.6	8.4	6.3
Total number of person-years lived in this and all subsequent age intervals (6)	6,639,842	6,540,651 6,145,109	5,651,883	5,159,814	4,671,969	4,191,618	3,720,386	3,259,852	2,812,846	2,382,251	1,971,658	1,586,446	1,230,248	209,667	635,241	413,675	244,021	123,100
T per		395,54 <i>Z</i> 493,226		487,845	480,351	471,232	460,534	447,006	430,595	410,593	385,212	356,198	320,581	274,426	221,566	169,654	120,921	123,100
Number dying during age interval (4)	944	28 / 223	385	1,328	1,580	2,069	2,244	3,185	3,389	4,724	5,483	6,130	8,116	10,289	10,757	9,798	9,504	19,565
Number of living at beginning of age interval (3)	100,000	99,056	98,546	98,161	96,833	95,253	93,184	90,940	87,755	84,366	79,642	74,159	68,029	59,913	49,624	38,867	29,069	19,565
Proportion of persons alive at beginning of age interval dying during interval (2)	0.009441	0.002900	0.003905	0.013527	0.016312	0.021724	0.024084	0.035020	0.038615	0.055996	0.068848	0.082656	0.119299	0.171730	0.216769	0.252091	0.326963	1.000000
Period of life between two exact ages stated in years (1)	Under 1 year	1-4 years 5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+ years

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A25. Life Tables for American Indian and Alaska Native Males in Portland Area, 1996-1998 (Adjusted 1)

THE THE LANGUAGE COMMENTS	persons alive at beginning of age	Number of living at		Position of the second	person-years lived in this and all	Average number of years remaining at hearinning of age
between two exact ages stated in years	interval dying during interval	beginning of age interval	Number dymg during age interval	rerson-years lived in the age interval	snosequem age intervals	oegunung oj age interval
	(2)	(3)	(4)	(5) nLx	(6) 77	(<u>7</u>
Inder 1 year	0.009468	100.000	947	99,188	6,791,591	62.9
de Control	0.003352	99,053	332	395,424	6,692,403	9.79
manded on a stand	0.001981	98,721	196	493,061	6,296,979	63.8
nyelennenn ein beliebe	0.002504	98,525	247	492,201	5,803,918	58.9
2007 200 200 200 200	0.009186	98,278	903	489,377	5,311,717	54.0
**********	0.013107	97,375	1,276	483,795	4,822,340	49.5
25-29 years	0.015313	660'96	1,472	476,914	4,338,545	45.1
30-34 years	0.015119	94,627	1,431	469,700	3,861,631	40.8
officerowns of the	0.023400	93,196	2,181	460,712	3,391,931	36.4
	0.036098	91,015	3,285	447,146	2,931,219	32.2
45-49 years	0.046083	87,730	4,043	429,033	2,484,073	28.3
50-54 years	0.050339	83,687	4,213	408,448	2,055,040	24.6
Mari e senson	0.065889	79,474	5,236	384,902	1,646,592	20.7
MANAGAT - MANAGAT.	0.110384	74,238	8,195	351,435	1,261,690	17.0
65-69 years	0.174176	66,043	11,503	302,109	910,255	13.8
70-74 years	0.233411	54,540	12,730	241,276	608,146	11.2
75-79 years	0.335324	41,810	14,020	173,734	366,870	8.8
V COMMITTER STATE	0.430602	27,790	11,966	108,199	193,136	6.9
85+ vears	1.000000	15,824	15,824	84,937	84,937	5.4

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.

Table A26. Life Tables for American Indian and Alaska Native Males in Tucson Area, 1996-1998 (Adjusted 1)

Average number of years remaining at beginning of age interval (7)	61.6	61.4 57 E	52.6	47.9	43.8	39.4	35.6	31.8	28.5	24.9	22.0	19.2	15.8	13.8	11.2	9.3	5.8	6.8
Total number of person-years lived in this and all subsequent age intervals (6)	6,159,366	6,060,468	5,173,345	4,682,552	4,197,984	3,721,934	3,256,831	2,807,077	2,377,639	1,970,964	1,591,267	1,246,989	936,271	829'999	445,815	272,926	139,642	58,870
Person-years lived in the age interval (5)	98,898	394,626	492,49 <i>1</i> 490.793	484,568	476,050	465,103	449,754	429,438	406,675	379,697	344,278	310,718	269,593	220,863	172,889	133,284	80,772	58,870
Number dying during age interval (4)	1,286	97	718	1,735	1,537	2,866	3,329	4,828	4,261	6,709	7,522	5,788	10,772	8,528	10,602	5,068	15,541	8,601
Number of living at beginning of age interval (3)	100,000	98,714	98,617 98,405	789,76	95,952	94,415	91,549	88,220	83,392	79,131	72,422	64,900	59,112	48,340	39,812	29,210	24,142	8,601
Proportion of persons alive at beginning of age interval dying during interval (2)	0.012855	0.000981	0.002145	0.017762	0.016017	0.030351	0.036367	0.054723	0.051095	0.084785	0.103865	0.089186	0.182229	0.176415	0.266293	0.173507	0.643738	1.000000
Period of life between two exact ages stated in years (1) x to x+n	Under 1 year	1-4 years	5-9 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85+ years

Counts of death by age, sex, and IHS area of residence were adjusted to compensate for race misreporting on the State death certificate.





